

REMARKS

This amendment is filed along with a Request for Continued Examination. The application has been amended in a manner believed to place it in condition for allowance.

Independent claim 18 is amended to recite that the vegetable oils of the binder are used either (i) without a catalyst or (ii) in the presence of a particular catalyst selected from the group consisting of cobalt octanoates or naphtenates, zirconium octanoates or naphtenates, and manganese octanoates or naphtenates. Accordingly, claims 29 and 30 are amended to require a specific catalyst or no catalyst, respectively. Support for this amendment may be found, for example, at specification page 6, lines 21-25.

Claims 18-43 are pending in the application.

Claims 18-25, 28, 29, 31-38 and 41 stand rejected under 35 USC §102(b) as being anticipated by AGGARWAL, et al. U.S. Patent No. 2,749,247 ("AGGARWAL"). Claims 30 and 42 stand rejected under 35 USC §103(a) as allegedly being unpatentable over AGGARWAL in view of BARNES et al ("BARNES"). These rejections are respectfully traversed for the reasons discussed below.

The position of the Official Action, which was maintained in the Advisory Action, was that the Tung oil employed by AGGARWAL does not appear to materially affect the characteristics of the invention, the dried coating would be

essentially free of organic solvent, and the properties of the claimed invention would be expected to be the same as those of the AGGARWAL composition. In support of this position the Official Action cited Example IV of the reference.

However, AGGARWAL, fails to anticipate the claimed invention for at least two reasons:

I. Example IV requires a solvent.

The independent claims 18, 31, and 43 do not comprise any solvent. This is clearly expressed by (i) the expressions "consisting essentially of" and "consists of" and (ii) the required values of penetrability, i.e., solvents would result in different values. These different values are demonstrated in the declaration of Jean-Eric Poirier, filed under 37 CFR 1.132, in the Appendix of the present amendment. The declaration evaluates a varnish suggested by Example IV of AGGARWAL, which the Official Action offered as the closest prior art.

According to the Official Action, Example IV teaches a composition comprising rosin ester (as a component a of the claimed invention), linseed oil and tung oil (as component b of the claimed invention) with cobalt linoleate added as a drier (a catalyst of the claimed invention). The Official Action further maintained that the varnish composition includes a ratio of a to b of 33:67. This composition also contains 300 cc of benzene.

The varnish is sprayed on a glass plate, and the position of the Official Action was that the resulting dried coating would be essentially free of organic solvent, as solvent would have been driven off during drying.

The declaration compares the claimed binder to the varnish suggested by the Example IV. In order to demonstrate the composition of AGGARAWAL, the declaration uses the amounts and conditions disclosed by AGGARWAL. For example, a non-toxic equivalent to the disclosed drier is added as a 12% solution of cobalt octanate, and both components a and b, as suggested by AGGARAWAL are preheated to 200°C. Additionally, the mixing time for components a and b in the declaration is six hours, which is not explicitly disclosed in Example IV, but AGGARWAL discloses several times throughout the publication that this mixing step usually takes three to six hours.

The resulting final composition is evaluated for penetrability and viscosity, which fails to fall within the claimed ranges.

Thus, these two claimed characteristics: (i) the expressions "consisting essentially of" and "consists of" and (ii) the required values of penetrability clearly exclude the varnishes of AGGARWAL.

II. Example IV requires a different catalyst.

Independent claim 18 further requires that the vegetable oil(s) of the claimed binder are used either (i) without a catalyst or (ii) in the presence of a catalyst selected from the group consisting of cobalt octanoates or naphthenates, zirconium octanoates or naphthenates and manganese octanoates or naphthenates.

Example IV of AGGARWAL, however, which is the alleged closest prior art, uses cobalt linoleate.

Therefore, AGGARWAL does not anticipate the claimed invention.

AGGARWAL also fails to render obvious the claimed invention, with or without BARNES.

As evidenced by the declaration of Jean-Eric Poirier, filed under 37 CFR 1.132, in the Appendix of the present amendment. As discussed above relative to anticipation, the declaration demonstrates that the resulting varnish composition suggested by AGGARWAL fails to fall within the claimed ranges for penetrability and viscosity.

Thus, AGGARWAL fails to render obvious the claimed invention.

BARNES does not remedy the shortcomings of AGGARWAL for reference purposes.

BARNE merely discloses that cobalt and manganese octanoate are top driers and barium and zirconium octanoate are through driers, and that some metallic octanoates are oxidative polymerization catalyst.

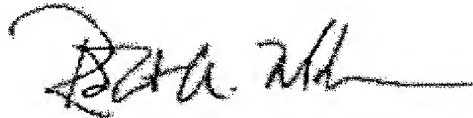
Therefore, withdrawal of the rejection is respectfully requested.

In view of the amendment to the claims and foregoing remarks, the application is in condition for allowance at the time of the next Official Action. Allowance and passage to issue on that basis is respectfully requested.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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Appendix:

The Appendix includes the following item:

- Declaration Under Rule 132

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Title: BINDER OF VEGETABLE NATURE FOR THE PRODUCTION OF
MATERIALS FOR BUILDING AND/OR CIVIL ENGINEERING
 Appl. No.: 10/820,004
 Applicant: BAILLIE Michel
 Filed: Apr. 8, 2004
 TC/A.U.: 1793
 Examiner: Brunsman, David M
 Docket No.: 0510-1093
 Confirmation No. 8562

CERTIFICATE OF MAILING

37 C.F.R. 1.8

I hereby certify that this correspondence is being deposited with the U.S. postal service with sufficient postage as First class Mail in an envelope addressed to: commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date below:

Date

Signature

DECLARATION OF JEAN-ERIC POIRIER UNDER 37 C.F.R. §1.132

Commissioner for Patents
 P.O. Box 1450
 Alexandria, VA 22313-01 450

I, Jean-Eric Poirier declare:

That the present declaration replaces my declaration of Tuesday, 11 march 2008.

I am a French citizen residing at 2 allée de l'Hermine 78180 Montigny le Bretonneux. I am currently employed as Scientific Director at Colas.

I was graduated in applied geological engineering in 1974 at Nancy followed by a PhD of physical chemistry, awarded by the National Polytechnical Institute of Lorraine in 1979. From 1979 to 1990, I worked as researcher at CNRS (National Scientific Research Center). I participated in several research projects concerning improved petroleum recovery, water treatment, ore beneficiation and the use of minerals as fillers in polymers. All these research

works are dealing with the field of colloid physical chemistry. I joined Colas in 1990 to direct the research into modified asphalts and bitumen emulsions. Since 1992, I am director of the Central Research Laboratory at Colas.

I am familiar with United States patent application 10/820,004 filed on April 8, 2004, being one of the named inventors. I have reviewed the pending claims 18-42 for this application.

I understand that the Examiner in charge of assessing the patentability of the above-referenced application considers that pending claims 18-25, 28, 29, 31-38 are not new over document US 2749247. I have reviewed the Final Office Action dated October 12, 2007 and document US 2749247 (hereinafter Reference A).

This declaration aims to show that the varnish compositions described in reference A do not anticipate the invention and are not suitable to be used as a binder for road applications as claimed in the invention.

I. Background

The Examiner considers that reference A discloses the invention as claimed in US Patent Application number 10/820,004 and in particular that example IV of Reference A teaches a composition comprising rosin ester (component a), linseed oil and tung oil (component b) with cobalt linoleate added as drier (catalyst). According to the Examiner, the varnish composition contains a ratio of a to b of 33:67. This composition also contains 300 cc of benzene. This varnish is then sprayed on a glass plate. The examiner considers that the dried coating would be essentially free of organic solvent as it is driven off during drying. Therefore, the Examiner considers that it is the dried composition which would be expected to have properties similar to those of the binder of the invention.

II. Experiment

II.1. General conditions

I have initiated and supervised reproduction of example 4 of Reference A. The composition so obtained was then characterized. The values characterizing the compositions of Reference A are then compared with those claimed for the compositions of the invention. Experiments were realized in "laboratoire Liants", Campus for Science and Technique between January 28 and 30th, 2008.

II. 2. Materials and methods

Materials:

- Boiled linseed oil: Venox R231001 commercialized by Vandeputte Oleochemicals, named H1
- Glycerol ester of polymerized rosin (Dertopoline G2L) commercialized by DRT, named R1
- Tung oil (commercialized by Vandeputte Oleochemicals), named H2
- Solution of cobalt octanoate (Octa-Soligen Cobalt 12 – Borchers) named CC1, the said solution containing 12 % in weight of pure cobalt octanoate
- Toluene

Remark: For safety and health reasons, Colas prohibits the use of benzene or cobalt linoleate such as described in Reference A. Therefore, these products have been replaced respectively by toluene and cobalt octanoate (Octa-Soligen Cobalt 12 commercialized by Borchers). To my knowledge, these two products are well known equivalents to benzene and cobalt linoleate.

Characterization methods:

- Penetrability was measured according to the standard NF EN 1426.
- Softening point was measured according to the standard NF EN 1427.
- Viscosity at 60°C was measured according to the standard NF EN 13302 with a Brookfield viscometer (50 RPM).

According to the invention, the viscosity is measured according to the standard NF EN 12596 at 60°C. Since the method according to standard NF EN 12596 is not available in the laboratory, I measured the viscosity according to the standard NF EN 13 302. These two methods measure the dynamic viscosity. I declare that, for the invention binders, the viscosities measured with both methods at 60°C are equivalent.

II. 3. Method for preparing the composition

75 grams of H1 were preheated at 200°C with constant stirring.

50 grams of R1 were preheated at 200°C with constant stirring.

H1 and R1 were mixed under stirring and cooked at 240°C during 6 hours.

No formation of thread was ever observed during the cooking contrary to the teaching of Reference A.

The temperature was then brought down to 200°C and 25 grams of H2 (tung oil) was added under stirring. The mixture was maintained at 200°C under stirring during 1 hour.

The mix does not give a thread at the end of this step.

The final composition is obtained by adding 287.5 grams of toluene and 12.5 grams of the solution of cobalt octanoate.

II.4. Characterization of the final composition

Requirement c1: The penetrability of the final composition at 25°C is higher than 50 mm and the softening point is lower than 28°C. The penetrability and the softening point are not within the range claimed in requirement (e.1) of the invention.

Requirement (c2): The viscosity of the final composition is 3.5 mPa.s at 60°C (speed 50 RPM – SC4-21). The viscosity of the final composition is not within the range claimed in requirement (e.2) of the invention.

Conclusion: None of the two requirements (e) of claim 18 is fulfilled. The composition of varnish according to example 4 is not suitable to be used as a binder.

II.5. Application of the varnish on a support and recovery

The varnish composition was sprayed on a glass plate.

I observe that the varnish is dry and hard when the solvent is evaporated. The recovery of the varnish without solvent is very difficult. Moreover, the dry varnish recovered lost its ability to bind materials. **The dry varnish cannot be recovered after drying and used as binder without being redissolved in a solvent.**

III. Conclusion

I reproduced Example 4 of Reference A by using the same manufacturing method and raw materials.

I never have obtained a thread such as disclosed in reference A.

The varnish composition according to example 4 presents characteristics of penetrability, softening point and viscosity which do not fall within the claimed ranges of the binder according to the invention.

The varnish once applied and dried is not reusable as binder without using a solvent.

I declare that all statements made in this declaration of my knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of title 18 of the united states Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

A handwritten signature in black ink, appearing to read "Jean-Eric POIRIER", with a large, sweeping horizontal stroke above the name.

Date

November 13, 2008

Signature

Jean-Eric POIRIER